# ESR-9855

## 11n Gaming Router with Gigabit switch

| 2.4 GHz | 802.11 b/g/n | 300 Mbps |
|---------|--------------|----------|

The Engenius Gaming Router is ideal wireless device for gamers who yearn for lag-free gaming experience and power users who want to optimize their networks and internet speed.

EnGenius gaming router is specially designed to recognize application patterns in the data stream and will prioritize those which requires the optimal bandwidth so as to deliver best performance.

This intelligent technology, called STREAMENGEINE, guarantees optimal wireless or wired performance and efficiency for applications like voice-over IP, gaming and video streaming and downloads.

To ensure secure wireless configuration, there is a one-touch helps to facilitate the set up.

The 4-port Gigabit switch allows seamless high speed connection between the wireless and wired used.

| Features | Benefits |
|----------|----------|
| High Speed Data Rate Up to 300Mbps | Capable of handling heavy data payloads such as MPEG video streaming |
| IEEE 802.11n draft Compliant and backward compatible with 802.11b/g | Fully interoperable with IEEE 802.11b/g/n devices |
| Four built-in 10/100/1000Mbps Gigabit Switch Ports (Auto-Crossover) | Scalability, able to extend your network |
| Supports DNS/ DDNS | Lets users assign a fixed host and domain name to a dynamic Internet IP address. |
| Supports NAT (Network Address Translation)/NAPT | Shares single Internet account and provides a type of firewall by hiding internal IP addresses for keeping hacker out |
| Hide SSID | Avoids unallowable users sharing bandwidth, increases efficiency of the network |
| Firewall supports Virtual Server Mapping, DMZ, IP Filter, ICMP Blocking, SPI | Avoids the attacks of Hackers or Viruses from Internet |
| Support 802.1x authenticator, 802.11i (WPA/WPA2, AES), VPN pass-thru mechanisms | Provide mutual authentication (Client and dynamic encryption keys to enhance security |

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|---|---|
| WDS (Wireless Distribution System) | Make wireless AP and Bridge mode simultaneously as a wireless repeater |
| Universal Plug and Play (UPnP™) | Works with most Internet gaming and instant messaging applications for automatic Internet access |
| Filter Scheduling | The filter can be scheduled by days, hours or minutes for easy management |
| Real time alert | The detection of a list for Hacker log-in information |
| Web configuration | Helps administrators to remotely configure or manage the Router via Telnet/Web-browser |

*** *Subject to change without prior notice*
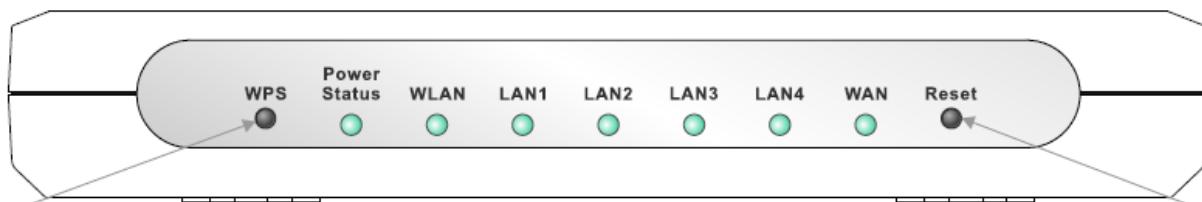
## Technical Specifications

● **Hardware Specifictions**

➢ Hardware Summary

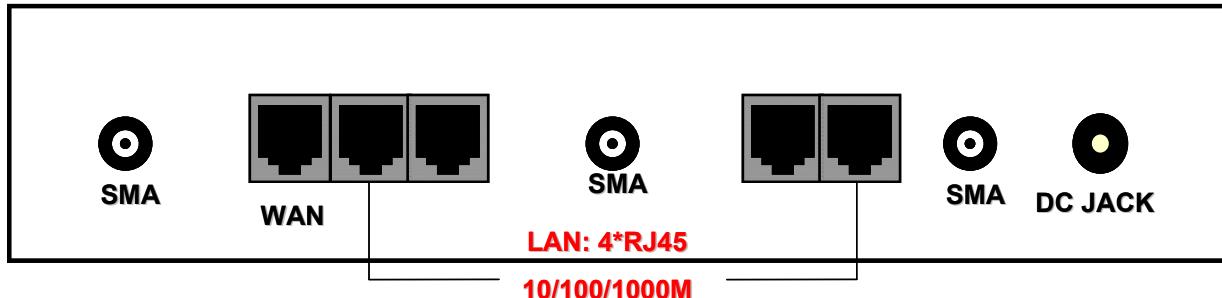| Expansion Slots | Mini-PCI Slots |
|---|---|
| Physical Interface | ● WAN: One 10/100/1000 Gigabit RJ-45<br>● LAN: Four 10/100/1000 Gigabit RJ-45<br>● Reset Button (1 second for Reboot, 5 second for Reset to Factory Default )<br>● Power Jack<br>● JTAG (for debug only) |
| LEDs Status | ● Power/ Status<br>● WAN (Internet connection)<br>● LAN1~LAN4 (10/100/1000Mbps)<br>● WLAN (Wireless Connection) |
| Power Requirements | ● Power Supply: 90 to 240 VDC ± 10%  (depends on different countries)<br>● Device: 12 V/ 1.25A |

➢ Front Panel (LED status)

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|---|---|
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|---|---|---|

| WAN | 1 ( Link->green on, traffic->blink) |
|---|---|
| LAN | 4 ( Link->green on, traffic->blink) |
| WLAN | 1 ( Link->green on, traffic->blink) |
| Power/Status | 1 ( On->green Test/reset default->blink) |

**Button**                                                                 **Button**

➤ Rear Panel (Interface)

➤ Radio Specifications

| Frequency Band | 2.400 ~ 2.484 GHz |
|---|---|
| Media Access Protocol | Carrier sense multiple access with collision avoidance (CSMA/CA) |
| Modulation Technology | ● OFDM: BPSK, QPSK, 16-QAM, 64-QAM<br>● DBPSK, DQPSK, CCK |
| Operating Channels | 11 for North America, 14 for Japan, 13 for Europe |
| Receive Sensitivity (Typical) | ● 2.412~2.472G(IEEE802.11b) (1Rx)<br>  -93dBm @ 1Mbps<br>  -91dBm @ 11Mbps |

| | |
|---|---|
| | • 2.412~2.472G(IEEE802.11g) (2Rx)<br><br>  -92dBm @ 6Mbps<br><br>  -79dBm @ 54Mbps<br><br>• 2.412~2.472G(IEEE802.11N) (2Rx)<br><br>  -90 dBm MCS 8<br><br>  -70 dBm MCS 15 |
| Available transmit power | • 2.412~2.472G(IEEE802.11b)<br><br>  19dBm @1~11Mbps<br><br>• 2.412~2.472G(IEEE802.11g)<br><br>  19 dBm @6Mbps<br><br>  16 dBm @54Mbps<br><br>• 2.412~2.472G(IEEE802.11N)<br><br>  20 dBm MCS 8<br><br>  16 dBm MCS 15 |
| Antenna Gain | Peak Gain = 2 dBi<br><br>Average Gain = 1.08 dBi (@ 2.45GHz, H-Plan) |

● **Software Features**

➢ Router and Gateway

| Topology | Infrastructure |
|----------|----------------|
| Operation Mode | AP/ Router/ WDS Bridge |
| LAN | • DHCP Server<br>• Static IP<br>• DNS<br>• UPNP |
| WAN | • Static IP<br>• DHCP Client<br>• PPPoE<br>• PPTP |

| | |
|---|---|
| | • Clone MAC<br>• DNS Relay<br>• DDNS-8 Verified Services |
| Router | • NAT/ NAPT<br>• Static Routing- RIPv2<br>• Dynamic Route<br>• Virtual server mapping<br>• IP address mapping<br>• Port Forwarding<br>• Port Triggering<br>• MAC address Filtering<br>• ALG(Application Layer Gateway) support (RTP/RTSP, AOL, FTP, ICMP, WMP/MMS, NetMeeting, SIP) |
| QoS | • WMM<br>• Intelligent Stream Handling/Wireless Intelligent Stream Handling<br>  ➢ Automatic Traffic Classification & Prioritization<br>  ➢ Dynamic Traffic Shaping & Packet Fragmentation<br>  ➢ Automatic Configuration |

| | |
|---|---|
| Firewall | • Blocking Ping<br>• ICMP Bolcking<br>• SPI (Stateful Packet Inspection)<br>• Rule Based (IP Address Ranges, Port Ranges & Schedule)<br>• DMZ (Demilitarized Zone) Host<br>• Policy Based Parental Controls<br>  ➢ Time Based Internet Access<br>  ➢ Port Range / Service Filtering<br>  ➢ Internet Domain Restriction<br>  ➢ Dynamic URL Filtering (OEM subscription service) |
| VPN | VPN pass-through (PPTP, L2TP, IPSEC) |
| Wireless | • 64/128 bit WEP Encryption<br>• WPA Personal (WPA-PSK using TKIP or AES)<br>• WPA Enterprise (WPA-EAP using TKIP) |

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| --- | --- | --- |
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|  | • 802.1x Authenticator |
| --- | --- |
|  | • Hide SSID in beacons |
|  | • Wi-Fi Protection Setup (WPS) |
|  | • Auto Channel Selection |

➤ **Management**

| Configuration | Web-based configuration (HTTP) |
| --- | --- |
| Firmware Upgrade | Upgrade firmware via web-browser |
| Administrator Setting | • Administrator password change |
|  | • Idle time out |
| Reset Setting | • Reboot |
|  | • Reset to Factory Default |
| System monitoring | Status and Statistics, Time Zone & NTP Client, Event Log, Email Alarm |